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New Gaging System Gives Flatsheet Producers Single Window Interface

A new generation of flatsheet measurement systems has been introduced. The ABB AccuRay 200 Gaging System uses the proven ABB Master automation system and gives the metals flatsheet producer a common electronics and operator interface to control the entire rolling mill. Together with the Stressometer flatness measurement and control, automatic gage control, drives control, tensiometer, and Pressductor load cells, the 200 System forms part of an integrated distributed control and measurement system. Linking AccuRay sensor technology with the existing ABB flat rolling mill offerings in a single platform gives the producer increased flexibility, with a single window interface, for controlling the entire rolling mill.

The new system allows the metals roller to install a stand alone mill function (AccuRay gaging, Stressometer, Rolling Mill Control, or Automatic Gage Control) and later add other functions, upgrading in a modular fashion. Each of the system components of an ABB rolling mill solution are interconnected using a standard MasterBus interface.

ABB AccuRay frames and sensors measure the thickness of steel and aluminum sheet and strip. Isotope and x-ray sensors are available for measuring a wide product thickness range, and with various system speed of response times—as fast as 1 ms.

The ABB Smart Sensor Interface (SSI) module uses proprietary software and a dedicated 68020 microprocessor that processes the raw measurement signal from ABB AccuRay sensors and interfaces to the AccuRay 200 System. Analog outputs from the interface module are user configureable and updated as fast as 2000 times/s. The input and output ports of the SSi module offer resolution of one part in 65,000. ▲

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